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1918

ANNUAL REPORT

OF THE DIRECTORS OF

MERICAN TELEPHONE AND TELEGRAPH COMPANY

TO THE STOCKHOLDERS
FOR THE YEAR ENDING
DECEMBER 31, 1918

NEW YORK, 1919

American Telephone and Telegraph Company

JANUARY 1, 1919

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REPORT OF THE DIRECTORS OF AMERICAN TELEPHONE AND TELEGRAPH COMPANY.

NEW YORK, March 10, 1919.

TO THE STOCKHOLDERS:

Herewith is respectfully submitted a general statement covering the American Telephone and Telegraph Company and its associated companies—the Bell System, exclusive of independent connecting companies—followed by the report of the American Telephone and Telegraph Company, for the year 1918.

The accounts are combined so as to exclude all duplications and inter-company matters—including interest, dividends and other payments to the American Telephone and Telegraph Company by the associated companies.

BELL TELEPHONE SYSTEM IN THE UNITED STATES.

TELEPHONE COMPANIES AND SUBSCRIBER STATIONS.

The Bell System, as a whole, is made up of the American Telephone and Telegraph Company and associated and connecting companies. The associated, or Bell companies are Bell companies by virtue of contract or license arrangements and financial relations. The connecting companies are independent companies whose telephone systems cover territory dependent upon them for service, connecting with the telephone systems of the Bell companies. Besides the separate systems making up the Bell System, there are many independent companies whose telephone systems cover, partially or completely, large areas of territory, operated independently of, and not connected with the systems of the Bell companies.

There are in the United States approximately 11,000 separate telephone companies. Of them 36 are Bell companies, 9,338 independent companies whose telephone systems connect with the Bell System, and about 1,600 independent companies whose telephone systems do not connect with the Bell System. There are also a large number of rural lines and systems which connect with the telephone systems of these companies, 26,055 of which are connected with the Bell System.

At the end of the year the number of telephone stations which constituted the Bell System in the United States was 10,992,325, an increase during the year of 516,647, of which increase 170,227 were owned by the Bell companies and 346,420 were Bell connected stations. Of the total number of stations in the system 7,201,757 were owned by Bell companies and 3,790,568 by local, co-operative and rural independent companies or associations having sublicense or connection contracts; the so-called connecting companies.

In addition to these there are about 1,012,000 stations owned by independent companies not connected with the Bell System.

THE WIRE SYSTEM.

The total mileage of wire of the Bell companies used for exchange and toll service, not including the wire of connecting companies, was at the end of the year 23,281,150 miles, of which 670,663 were added during the year. Of the total mileage 19,947,230 miles were exchange wires and 3,333,920 miles were toll wires. Ninety-four per cent. of the total wire mileage is copper wire. 13,967,496 miles, or 60 per cent. of the mileage, including 1,126,156 miles of toll wires, is in underground cables, and this percentage is steadily increasing. The underground conduits represent a cost of $115,900,000 and the cables in the conduits $158,000,000, a total in underground plant of $273,900,000.

During 1918, 24,384 miles of "phantom circuits" were added, making 305,400 miles at the end of the year.

The wire mileage of connecting companies is not included in any of these figures. The approximate mileage of connecting companies' toll wires is 420,195 miles, which added to the 3,333,920 miles of toll wires of the Bell companies, makes a total of about 3,754,115 miles of such wires bringing together in one comprehensive, inter-communicating system all the cities and towns and practically all of the rural communities throughout the United States.

TRAFFIC.

Including the traffic over the toll and long-distance lines, but not including that of connecting companies, the daily average of toll connections during the 7 months of the year prior to Federal Control was about 1,045,900, and of exchange connections about 31,263,600, as against the daily average for the year 1917 of 1,009,000 and 30,845,000; the total daily average for 7 months 1918 reaching 32,309,500 or at the rate of about 10,750,000,000 per year. This is an average of approximately 100 calls per year for every man, woman and child in the United States.

PLANT ADDITIONS.

The net amount added to plant and real estate by all the companies, excluding connecting companies, constituting our system in the United States during the year 1918 was $77,922,631, distributed as follows:

Real Estate........................	$10,066,038	
Equipment........................	30,558,721	
Exchange Lines....................	21,713,369	
Toll Lines........................	19,894,646	
Construction Work in Progress, etc...	4,310,143*	
		$77,922,631

*Decrease.

PLANT ADDITIONS OF PREVIOUS YEARS.

The net amounts added in nineteen years have been as follows:

1900	$31,619,100	1910	$ 53,582,800
1901	31,005,400	1911	55,660,700
1902	37,336,500	1912	75,626,900
1903	35,368,700	1913	54,871,900
1904	33,436,700	1914	50,045,300
1905	50,780,900	1915	32,863,700
1906	79,366,900	1916	66,224,700
1907	52,921,400	1917	118,599,500
1908	26,637,200	1918	77,922,600
1909	28,700,100		

making a total for the nineteen years of $992,571,000.

MAINTENANCE, DEPRECIATION AND RECONSTRUCTION.

During the 7 months of the year prior to Federal Control, $26,568,000 was applied out of revenue for current maintenance, an increase of $3,754,000 as compared with the same period in 1917. For the last 5 months of the year and continuing during the period of Federal Control, the agreement with the Government provides that "through current repairs and maintenance the property of the Bell System shall be maintained by the Postmaster General up to a standard relatively equal to that prior to July 31st, 1918, so that its state of repair and operating condition will be relatively the same at the expiration of the period of Federal Control as at its beginning."

The agreement with the Government provides further that during the period of Federal Control the Postmaster General shall set aside each year or fraction of the year for depreciation and obsolescence, an amount relatively equal to that of the past. Including the amount set aside out of revenues for the first 7 months, the total provision for depreciation of plant during the year was $54,000,000. After meeting all proper charges against the depreciation reserve on account of plant removed or reconstructed, the reserve at the end of the year had increased $34,000,000.

OPERATING RESULTS TO AUGUST 1ST.

The American Telephone and Telegraph Company and associated companies constitute one operating entity, and to understand or correctly determine the actual costs and charges of the telephone service and the ultimate distribution of the revenue, their accounts must be consolidated.

The following figures show the business of the Bell Telephone System including the American Telephone and Telegraph Company and its associated holding and operating companies in the United States, but not including connecting independent or sub-licensee companies, or the Western Electric Company, Inc., except as dividends from those companies are included in revenue. All inter-company duplications are eliminated so that the figures represent the business of the system as a whole in its relations to the public.

The statement of earnings and expenses for the 7 months prior to Federal Control is presented in the form called for by the Interstate Commerce Commission's accounting system. In round figures the total operating revenues of the Bell System were $182,800,000, an increase of $13,-300,000 or 7.9 per cent. over first 7 months 1917. Of these revenues depreciation and maintenance consumed $54-123,000, an increase of $206,000 over first 7 months 1917 or 0.4 per cent.; traffic expenses consumed $48,140,000, an increase of $10,747,000 or 28.7 per cent.; commercial expenses, $18,084,000, an increase of $1,709,000 or 10.4 per cent.; general and miscellaneous expenses, $8,899,000, an increase of $1,011,000 or 12.8 per cent.; taxes assignable to operations for 7 months, in which provision is made for the estimated amount of federal income taxes payable in 1919, $13,621,000, an increase of $2,920,000 or 27.3 per cent.

CAPITALIZATION AND PLANT AT END OF YEAR.

The total capitalization, including inter-company items and duplications but excluding reacquired securities of the companies of the Bell System, is $1,731,405,163. Of this, $740,330,899 is owned and in the treasury of the companies of the Bell System, and is represented to the public by the outstanding securities of the American Telephone and Telegraph Company and associated companies.

The capital stock, bonds and notes payable of the Bell System *outstanding in the hands of the public at the close of the year were* $991,074,264, of which the outstanding securities of the American Telephone and Telegraph Company represent $676,283,362, and outstanding securities of the associated companies in the hands of the public represent $314,790,902.

A number of appraisals of our properties in the various cities and states have been made by public authorities practically all of which have appraised the value of the properties greater than the amounts carried on our books.

The telephone plants stand on the books of the companies at $1,142,815,341, as of December 31, 1918, a net increase during the year of $77,922,631, after deducting all plant withdrawn from service, sold or abandoned.

The surplus and reserve, aggregating over $340,000,000, an increase of over $36,000,000, is invested in productive property.

In accordance with our previous practice in making up the combined figures for the Bell System, all inter-company items have been eliminated, and all intangible assets have been excluded, so that the combined surplus and reserves as shown above are considerably less than the sum of surplus and reserves shown on the books of the separate companies.

BELL TELEPHONE SYSTEM IN UNITED STATES.

REVENUE AND EXPENSES, FIRST 7 MONTHS, 1918. (ALL DUPLICATIONS INCLUDING INTEREST, DIVIDENDS AND OTHER PAYMENTS TO AMERICAN TELEPHONE AND TELEGRAPH COMPANY BY ASSOCIATED COMPANIES ARE EXCLUDED.)

	7 Months, ending July 31, 1918.
Exchange Revenues	$127,859,363
Toll Revenues	52,938,341
Miscellaneous Revenues	2,005,326
Total Operating Revenues	$182,803,030
Depreciation	$ 27,555,197
Current Maintenance	26,567,799
Traffic Expenses	48,140,039
Commercial Expenses	18,084,041
General and Miscellaneous Expenses	8,899,376
Total Operating Expenses	$129,246,452
Net Operating Revenues	$ 53,556,578
Uncollectible Revenues	$ 768,167
Taxes	13,621,353
Operating Income	$ 39,167,058
Net Non-Operating Revenues	5,128,757
Total Gross Income	$ 44,295,815
Rent and Miscellaneous Deductions	$ 2,686,813
nterest Deductions	12,715,194
Total Deductions	$ 15,402,007
Balance Net Income	$ 28,893,808
Deduct Dividends	23,121,447
urplus Earnings	$ 5,772,361

NOTE: The above statement is subject to minor adjustments on ccount of certain items relatively small in amount yet to be definitely llocated as between the Bell System and the Government.

EMPLOYEES AND SERVICE.

This has been from every standpoint the most strenuous and difficult year in the whole history of the telephone. It has been impossible to maintain standards, and difficult to meet the increasing demands of service. In the annual report of last year the increase in activities and its effect on business is referred to. The increase was greatly augmented at all centers where war industries and activities concentrated. As in all other industries there has been difficulty in maintaining a full complement of employees. In addition to the calls of the regular service, the Government made special calls for special service upon our highly trained and expert employees. Altogether, exclusive of employees of the Western Electric Company, Inc., about 14,000 of our employees entered service. Of our highly educated scientific staff in our highly technical departments, over 15 per cent. were taken into special service, while of our highly skilled expert staff, trained and educated in the art, over 20 per cent. were taken into special or active service. The great increase in the openings for women in all kinds of work, although from its very nature temporary, together with greatly increased compensation far above that which the telephone revenue would warrant, attracted many of our operators and made serious inroads on our operating force.

Very naturally the change to Government control was disturbing, accompanied as it was by all sorts of bewildering confusion and disturbing rumors, put forth by irresponsible people without warrant of authority. Like all rumors of this kind, they spread faster than the contradictions could follow. This cause of disturbance and uncertainty should be completely quieted by the continuance of existing operating organizations under the Operating Board of the Postmaster General, and also by the full realization that all who are capable, efficient, and interested in the work are now needed even more than in the past for the proper carrying on of a service that must be continued at the highest possible standard of usefulness and efficiency.

Practically all the employees of the telephone service are in the expert class. It takes time to educate and replace those who drop out from any cause. It has been possible to maintain any kind of a force only because the companies pay the highest wages commensurate with the revenue obtained from the public; because they surround their employees with the best possible working conditions, and because—through their sick benefits and other collateral benefits, through a certain feeling of permanent tenure of employment and consequently a feeling of security—they engender a feeling of participation.

There are always opportunities open to Bell employees, and with the abundant opportunities for other employment at superior compensation, even if lacking other material considerations, it is little less than marvelous that our force was not decimated to the point of making service impossible.

While this standard of service has been in many places maintained, there has been an unpreventable letting down in many centers of acute activity due not only to the absolute impossibility of getting a trained force, but also to the overstrain of the existing force. It is a matter of satisfaction that the telephone service has maintained its standards as well as it has when we consider all the disturbing factors, and when we also consider the general letting down there has been in all service, particularly private service where the intimate relations between the employee and employer should be a warrant for good service.

A gratifying testimonial to the war work of the engineers of the Bell Telephone System, including the Western Electric Company, Inc., follows:

My dear Mr. Vail:

The Chief Signal Officer, General Squier, has called to my attention the splendid spirit of cooperation and helpfulness which has been evinced during the war by the wonderful engineering organization of the American Telephone and Telegraph Company. The Airplane Radio Telephone Set, which has proven so satisfactory to the Air Service, and which has brought about entirely new methods of military use of airplanes, is a particular example of the result of this cooperation. The evolution and development of this and other important apparatus was made possible only because your engineering staff freely furnished the highly technical knowledge and skill necessary in the development, design and manufacture of the sets.

Please express to your engineers my appreciation of the splendid service rendered.

Very truly yours,
(Signed) NEWTON D. BAKER,
Secretary of War.

WESTERN ELECTRIC COMPANY, INCORPORATED.

The sales of the Western Electric Company, Incorporated, for the year 1918 aggregated $145,200,000, of which $67,800,000 were to the associated Bell companies, $21,800,000 were to the War and Navy Departments of the United States Government, and $55,600,000 were to other customers.

Although, with the exception of 1917, this was the largest year's business ever done by the company, the very high costs of labor and material during the year, the unusual taxes, the writing down of inventory at the end of the year because of decreasing values of materials then on hand and other necessary reserves will probably result in only a small balance after the payment of the regular dividends.

The unfilled orders at the end of the year aggregated about $26,200,000 after deducting those cancelled or likely to be cancelled by the Government on account of the cessation of hostilities. This is a decrease of $2,500,000, as compared with unfilled orders at December 31, 1917, and it now seems probable that the total sales in 1919 will be considerably less than in 1918.

Although the company was not requested by the Government to supply other products than those along its general lines of manufacture in peace times, the engineering and technical staff was employed chiefly on war work throughout the year.

In addition to the development and the manufacture in large quantities of new types of equipment for wire communication for military purposes, there were extremely important developments made in radio telephony, of which the principal applications were to airplanes and submarine chasers.

EMPLOYEES' BENEFIT FUNDS.

The Plan for Employees' Pensions, Disability Benefits and Death Benefits described in previous reports, has been in effect throughout the Bell System during the year, thus completing the sixth year of its operation.

The entire cost of the Plan through July 31, 1918, was paid by the companies. The cost except in respect of certain corporate employees is paid during the period of Federal Control by the Postmaster General.

In the six years 1913 through 1918, the expenditures from the Benefit Funds of the Bell Companies, including the payments made by the Postmaster General during the five months of Federal Control, have amounted to $10,534,594. The reserves for these Benefit Funds are being maintained by the companies and on December 31, 1918, they aggregated $9,244,000.

Pensions. 367 former employees were on the pension rolls at December 31, 1918, a net increase of 53 during the year. The average pension paid was $42 per month.

Sickness. The number of cases of sickness which occurred during 1918 among employees eligible to benefits under the Plan was 33,156, an increase of 13,726 cases over the previous year. The aggregate sickness benefits paid during 1918 were $1,799,794 and the average period of disability for cases completed was thirty-three days.

Accidents. 8,174 work accidents occurred during the year, a decrease of 2,558 cases as compared with 1917. The total benefit payments on account of accidental injuries were $525,126, including $125,905 for medical attention, hospital care, etc.

Death Benefits. $399,647 was paid in death benefits during 1918 (excluding accident cases included above) to the dependent relatives of 391 employees who at their death had been in service for five years or more. Burial expenses for 120 employees who left no dependents amounted to $24,229, making total payments on account of deaths of employees $423,876.

Summary. The total amount of the payments under the Employees' Benefit Plan during 1918 was $2,917,219, exclusive of the expenses of administration of the Plan.

As in previous years, financial assistance has been given in many cases of disability which did not come wholly within the provisions of the Employees' Benefit Plan. The amount expended for this assistance during the year was $278,339.

REPORT OF THE AMERICAN TELEPHONE AND TELEGRAPH COMPANY.

The statement of earnings of the American Telephone and Telegraph Company includes for the seven months prior to Federal Control, in addition to the net receipts of the long-distance lines, only that part of the earnings of the Bell System which is received by the American Telephone and Telegraph Company, out of the divisible surplus of the associated companies from operations, as interest or dividends on money advanced by the Company to finance the associated companies, or as payment by the associated companies to maintain the central administration. For the five months of Federal Control, the statement includes this Company's portion of the Bell System compensation under the contract with the Government.

The disbursements of dividends and interest represent the charges on the securities issued by the Company to finance the associated companies and the long-distance lines.

The actual financial and statistical statements of the telephone service of the Bell System are shown elsewhere in this report.

EARNINGS.

The net earnings of the American Telephone and Telegraph Company for the year were $54,293,016.72. These results are after making provision for the federal income taxes payable in 1919. The interest charges were $10,391,694.89 and the dividends at the regular rate of 8 per cent. per annum were $35,229,698.96. Of the resulting balance $5,000,000 was appropriated for contingencies and $3,671,622.87 added to Surplus.

BALANCE SHEET.

The balance sheet of the American Telephone and Telegraph Company is given as usual at the end of this report. By comparison with the previous year's balance sheet it will be seen that the investment in stocks, bonds and notes of associated companies increased $33,084,043.65; and permanent plant increased $11,300,037.02, current assets increased $5,165,696.58 and cash increased $8,611,501.27.

The account "Trustees—Employees' Stock Purchase Plan," $1,226,000.25, represents the balance on advances made to the Trustees to acquire stock which they sold to employees on the plan of easy payments explained in previous reports, less payments on that account received from employees.

On the other side, under liabilities, the increase in capital stock outstanding of $6,305,900 represents balance of subscription on new stock offered shareholders of record December 11, 1916, stock issued in exchange for convertible bonds and stock issued in exchange for stock of The Bell Telephone Company of Pennsylvania. Capital Stock Instalments of $238 represent payments on account of subscriptions not yet paid in full. The total indebtedness increased $43,285,851.75 during the year.

There was a total increase in assets of $58,161,278.52, against which was a net increase in capitalization and indebtedness of $49,574,465.25, showing a net improvement in the Company's financial position of $8,586,813.27, which is represented by the increase of that amount in surplus and reserves.

CAPITAL STOCK AND BONDS.

During the year Capital Stock increased $6,305,900. Of this $27,600 was issued for cash at par, in accordance with the terms of the offer to stockholders of record at December 11, 1916. $6,000,000 was issued in exchange for stock of The Bell Telephone Company of Pennsylvania. The balance of $278,300 was issued in exchange for convertible bonds.

On March 1, 1918, the right to convert the Convertible 4 Per Cent. Gold Bonds of 1936 into stock expired. Up to that date $147,411,000 of the $150,000,000 issued had been handed in, leaving $2 589,000 outstanding, a reduction of $254,000 during the two months of 1918.

$87,300 of the Convertible 4½ Per Cent. Gold Bonds of 1933 were converted into stock during the year at the ratio of $120 of bonds, or $100 of bonds and $20 of cash, for one share of stock. There remained outstanding at the end of the year $13,073,500 of these bonds out of a total of $67,000,000 issued in 1913.

An issue of $50,000,000 7-year 6 Per Cent. Convertible Gold Bonds dated August 1, 1918, was authorized in July for the purpose of raising funds to meet the current requirements for construction and other purposes. The stockholders were given the right to subscribe for these bonds on the basis of their holdings. The amount thus offered, $48,367,200, was underwritten and has been sold, leaving $1,632,800 of the bonds authorized unissued.

In January, 1919, $40,000,000 5-year 6 Per Cent. Gold Notes dated February 1, 1919, were sold in order to provide funds for the payment of an equal amount of 6% notes of associated companies maturing on that date, bearing the endorsement of this Company, referred to in last year's report.

There are also outstanding, endorsed by this Company, $11,200,000 notes of the 195 Broadway Corporation, due

July 1, 1920, which corporation owns the real estate where the Company's offices are now located.

The total outstanding capital stock and bonds of the American Telephone and Telegraph Company at December 31, 1918, were as follows:

Capital Stock...................	$441,947,100
4% Collateral Trust Bonds, 1929..	78,000,000
5% Collateral Trust Bonds, 1946..	78,333,900
4% Convertible Bonds, 1936.....	2,589,000
4½% Convertible Bonds, 1933...	13,073,500
5% Western Telephone and Telegraph Company Bonds, 1932, guaranteed.................	9,985,000
6% Convertible Bonds, 1925.....	48,353,624
Total.....................	$672,282,124

For the $441,947,100 capital stock $478,479,787.97 has been paid into the treasury of the Company; the $36,532,687.97 in excess of par value represents premiums on stock which are included as part of the Company's surplus.

All discounts on bond and note issues are deducted in determining the net surplus as shown in the balance sheet.

The number of shareholders, not including employees purchasing stock under the plan of easy payments, was 112,420 on December 31, 1918, and shows an increase of 25,821 during the year. That the distribution continues to be more general appears from the following:

103,162 held less than 100 shares each;
8,858 held from 100 to 1,000 shares each;
370 held from 1,000 to 5,000 shares each;
11 held 5,000 shares or more each (omitting brokers, holders in investment trusts, etc.).

Of the holders of less than 100 shares each,

41,281 held 5 shares or less each;
84,576 held 25 shares or less each.

The average number of shares held was 39.

A majority of the Company's shareholders are women. Four per cent. of the stock was at December 31st in the names of brokers and less than 2 per cent. of all the stock is held in Europe.

To the 112,420 stockholders of record shown above there should be added some 14,000 employees of the Bell System in all parts of the country who are paying for stock out of their wages at the rate of $2 per share per month. (Several thousand employees have already paid in full for their stock, and are now stockholders of record.) Counting these and also those persons whose stock is held for them in investment trusts and the like, there are probably at least 135,000 actual owners of stock in this Company.

There has at no time been more apparent than now the wisdom of our established and conservative policy in the conduct of our business. Full maintenance of the property, ample reserves for depreciation and obsolescence, fixed dividend payments, all surplus and unexpended reserves invested in property, issue of capital stock at a premium through convertible bonds, have all contributed to credit and through good credit only can necessary financing be done at reasonable rates. The dividend rate fixed was reasonable, particularly when considered in connection with the premiums realized on the share capital. It is well within the earning power, is such as will in normal times maintain the shares at a premium and enable the Company in the future as in the past to place its share capital at a premium, directly or through the medium of convertible bonds. Of the total share capital issued since the American Telephone and Telegraph Company took over the operations, about one-half has realized for the treasury, through exchange for convertible bonds and cash, from 20 per cent. to 33 per cent. premiums.

That part of the plant of the Bell System against which there are no outstanding obligations and which has been paid for from unexpended reserves and the surplus earnings and share capital premiums, is at the lowest estimate equal to one-third of all the outstanding obligations, or 60 per cent. of the outstanding share capital of the Bell System. Deducting from our interest and dividend payments the taxes paid by our system, the rate of the fixed capital charge against the property is less than that paid by the Government on any of its Liberty Bonds. In the history of the Company, there has been no year which did not show a surplus after all necessary requirements were met.

The tables on the opposite page show the capitalization, book value of plant and the relation of capital and reserve to plant and stations of the Bell System, and also the same for the independent companies having an annual operating income of $250,000 or over, as shown by the official statements.

It will be noted that the capital obligations to plant or per station are lower and the reserves and surplus assets higher in the Bell System than with the independent companies, emphasizing again the conservative policy followed by the Bell System in its operations.

ENGINEERING.

Note: The Engineering Department of the Bell Telephone System includes the American Telephone and Telegraph Company and associated companies and Western Electric Company, Inc.

During the year 1918 heavy responsibilities have rested upon the engineers of the Bell Telephone System. Many went into the Army and Navy, and those remaining have been charged not only with their regular duties pertaining to the development and standardization of new and improved methods and apparatus and the application of existing and new standards to the system, but further duties have devolved upon them arising out of this

BELL TELEPHONE SYSTEM IN UNITED STATES.

	Dec. 31, 1907	Dec. 31, 1917	Increase 10 Years
Plant	$502,987,900	$1,064,892,710	$561,904,810
Plant and Other Assets (Net)	$593,696,900	$1,230,121,216	$636,424,316
Capital Stock	$291,095,400	$505,403,777	$214,308,377
Interest Bearing Obligations	241,289,400	411,972,645	170,683,245
Total Capital Obligations	$532,384,800	$917,376,422	$384,991,622
Surplus and Reserves	$61,312,100	$303,525,651	$242,213,551
Per Cent. Capital Obligations to Plant and Other Assets	89.7	74.6	....
Per Cent. Surplus and Reserves to Plant	12.2	28.5	....
Per Cent. Surplus and Reserves to Plant and Other Assets	10.3	24.7	....
Per Cent. Interest Bearing Obligations to Total Capital Obligations	45.3	44.9	....
Plant per Station	$169.61	$152.60	....
Capital Obligations per Station	$179.52	$131.46	....
Reserves and Surplus per Station	$20.67	$43.50	....

SEVENTEEN INDEPENDENT COMPANIES.

(With Annual Operating Revenues over $250,000 each)

	Dec. 31, 1917
Plant	$114,823,452
Plant and Other Assets (net)	$124,111,080
Capital Stock	$54,736,833
Interest Bearing Obligations	52,244,356
Total Capital Obligations	$106,981,189
Surplus and Reserves	$17,129,891
Per Cent. Capital Obligations to Plant and Other Assets	86.2
Per Cent. Surplus and Reserves to Plant	14.9
Per Cent. Surplus and Reserves to Plant and Other Assets	13.8
Per Cent. Interest Bearing Obligations to Total Capital Obligations	48.8
Plant per Company Station	$195.48
Capital Obligations per Company Station	$182.13
Reserves and Surplus per Company Station	$29.16

country's participation in the war. These extra duties have been varied in nature and of the utmost importance in connection with the successful conduct of the war. Many of them were confidential, and those performing them were, during the continuance of the war, under an oath of secrecy with reference to their work. This obligation of secrecy has, however, been recently removed, and this work can now be reported upon.

For the successful handling of the American forces in France, it was necessary to construct and operate there an extensive telephone and telegraph system extending from the ocean bases to the various Army headquarters at the front, and to include in this communication system all camps, supply bases, repair stations, hospitals and other centers of activity, together with connections with the principal centers of our Allies, and with the commercial system of France. We not only largely provided the technically skilled men to execute this work, but our engineers assisted and cooperated with the Signal Corps of the Army in designing the system, determining the materials best suited for its construction and in applying to it our latest methods of obtaining the most rapid service and highest grade of transmission.

To secure efficient service over their telephone system in France, the American Expeditionary Force found it necessary to employ women operators, and the requirements were particularly difficult since not only must these women be expert telephone operators, but they must also be able to speak French fluently. At the request of the Signal Corps the Engineering Department, with the assistance of the operating companies, undertook to secure the necessary operators, and to turn them over properly trained, organized in groups, and equipped to start for France. As a canvass of the telephone forces throughout the country disclosed the fact that a sufficient number of French speaking operators were not available, it was necessary to arrange for interviewing thousands of applicants, and assembling those qualified at certain selected points throughout the country where they were given special and thorough courses of training in telephone operating. This work was started about the first of the year, and within two months the first contingent had sailed. Before the armistice, several hundred of these operators were in service in France, and many more were in training. The reports from the Expeditionary Force bear witness to the important part which they played in the achievements of the American Army.

The Coast Guard system of the United States in peace times provides for the patrolling of the coasts, its function being principally the assisting of ships in distress, and the enforcing of the revenue laws. Immediately upon the outbreak of the war however, it was important to be able to use this force for maintaining a lookout throughout the whole length of the Atlantic and Gulf coasts so that operations by submarines or other enemy activities might be immediately known and reported to the proper authorities.

The system of communication existing at the beginning of the war, and sufficient to meet peace conditions, was entirely inadequate for the new conditions arising from the war, particularly in view of probable enemy submarine operations. We were requested by the Coast Guard authorities to assist them in the determination of what would constitute an adequate and practical system, and in the design and supervision of the installation of such a system. A group of our engineers were assigned to this work, and a complete system was designed, new apparatus and new methods being developed in many cases, and we directed and supervised their installation. This system provided means by which any Coast Guard station could be put in immediate telephonic communication not only with adjacent stations, but also—through the general lines of communication of the country—with any other Coast Guard station, and with central points, including all the Naval district headquarters, and the general headquarters of the Navy at Washington. Included in this communication system were strategically located lighthouses. This required in many cases the laying of special submarine cables, some of these lighthouses being as much as twenty miles off shore.

The work referred to in the last annual report with reference to the installation of telephone systems and trunk line facilities at Army cantonments and camps, department and district headquarters of the Army and Navy, Army Posts, Navy Yards, Aviation Fields, Supply, Quartermasters' and training camps, munition and other manufacturing plants, ship-building yards and other centers of war activities, has been continued on a large scale, and many engineering problems have required solution in connection with this work. Up to the very end of hostilities the work of extending the toll line plant throughout the United States, the extension of the local telephone plants at the various centers of war activity, and especially at Washington, was very active.

Upon the declaration of war, the personnel and facilities of the Engineering Department of the Bell System were called into action by the War and the Navy Departments for the solution of many special technical problems. Some of these were problems not related directly to telephone or telegraph communication, but were of such a nature that the skill and experience of our staff peculiarly fitted us for undertaking their solution.

Prior to the war demonstrations of the successful operation of our radio telephone system had been made and been reported upon. Immediately at the outbreak of the war we were called upon by the Signal Corps of the Army to advise them as to what could be done in successfully operating wireless telephone systems between an airplane and the ground, and between two airplanes. The fundamental work on radio communication which we had already done enabled us to assure the Signal Corps that we could successfully accomplish the desired result. Similar requests were received from the Navy Department with reference to the equipment of their hydro-aeroplanes for telephone service, and the equipment of submarine chasers with radio telephone service. Instantaneous communication between a number of submarine chasers operating together was an essential feature of some of the most promising methods of submarine location, and this requirement could only be met by a satisfactory radio telephone system. Building upon our previous fundamental radio work, we were enabled within nine months from the starting of the work to complete the development work, and to arrange for quantity production of the radio telephone equipment desired for both airplanes and submarine chasers. This achievement was due to the skill of our engineers, and would have been impossible without it. We were enabled to accomplish within a few months, important results which had been needed since the beginning of the war, but which had not been obtained either by our Allies or our enemies.

While most of our radio efforts were directed to telephony, we were called upon by both the Army and the Navy for considerable assistance in the production of radio telegraph equipment, especially apparatus for the reception and amplification of signals, and the development of small portable sets for field use.

Shortly after the outbreak of the war, the Secretary of the Navy created a special board for handling all anti-submarine problems. In addition to regular Naval officers, the Secretary appointed four advisory members, one of whom was one of the principal engineers of the Bell System. Work on the problem of submarine detection, one of the most vital problems of the war, reached very large proportions and hundreds of engineers of the Bell System were engaged upon it. This work included fundamental studies of the disturbances produced by submarines in motion and at rest; the development of detecting apparatus to be used on the surface and on submarine vessels, either when at rest or in motion, and to be used on airplanes; the development of detecting equipment to be installed at fixed submarine stations connected to the shore by suitable cables, and of signaling and direction-finding equipments, as well as of special transmitters, receivers, amplifiers and circuit arrangements for use with all such detecting apparatus. While technical detail as to results cannot be given here, it may be said that most satisfactory results were obtained.

An interesting and important development made by the engineers of the Bell System was the production of a secret ciphering adaptation of the printing telegraph. This arrangement made possible the easy and rapid sending of telegraph messages in a cipher unintelligible and unbreakable by one not having the key. After being subjected to the most rigid tests by the military cipher experts, this system was placed in use by the Signal Corps several months prior to the conclusion of hostilities. Adaptations of this system are now being made by our engineers rendering it available for other than printing telegraph methods of transmission.

One of the largest and most interesting individual problems undertaken by us was the development of apparatus for the detection and location of invisible airplanes. At the time of the signing of the armistice, the work had progressed so far that the apparatus and equipment developments had made it possible to locate with extreme accuracy the exact position of an invisible airplane and to concentrate the fire of anti-aircraft batteries so that the shells would explode within close proximity to the airplane.

Probably the most carefully guarded of war problems was that relating to the apparatus for locating accurately the position of enemy artillery. Two forms of this equipment were developed, known respectively as flash ranging and sound ranging apparatus. The first of these was relatively simple and involved a visual observation at the time the gun was fired. Considerable quantities of this equipment were developed and manufactured by the Engineering Department of the Bell System. In the sound ranging apparatus the determination of gun location was the result of observations of the sound produced when the gun was fired. At the time the United States entered the war, this means of accurate location was already being developed by both the English and the French with most promising results. After we entered the war we were asked by the Army to carry on this development work in the United States. For nearly a year this work was carried on in our laboratories in specially designated and locked rooms which were under guard day and night. Apparatus was developed and produced, shipped to France and placed in use. At the time of the signing of the armistice this apparatus was reported from France to be the best in use by any of the Allied forces. (See letter from the Secretary of War on page 12.)

In view of the shortage of labor and material and the marked increase in telephone traffic brought about by the war, the operating companies were confronted with unusual difficulties in giving the service necessary to the successful carrying on of war work in this country. To meet this emergency it was necessary to modify the standard operating methods and practices, and the Engineering Department, after careful study of all conditions and methods, recommended numerous modifications and special methods which were an important factor in the successful handling of telephone calls during 1918. The ranks of the supervising forces were also depleted by the war, and it was necessary to introduce special methods of supervision, particularly in connection with toll work. The losses from the operating forces during 1918 were about double those of the previous year, and this not only caused a shortage of operators, but also made it necessary to employ a large number of inexperienced people and give them special and intensive training. An important feature of the Engineering Department's work has been the devising of proper methods of instruction for use under these conditions, and the direct assistance of the operating companies in this work.

Notwithstanding all of the activities of our engineers pertaining to the war, the regular work of the Engineering Department has been carried on. Our development and standardization has continued, and as usual we have advised the operating companies on large or difficult questions as they arose. Special mention should be made of the multiplex telephone and telegraph system. By our multiplex telephone system four telephone conversations over one pair of wires are simultaneously carried on in addition to the telephone conversation made possible by the ordinary methods of working. Thus over a single pair of wires, a total of five telephone conversations are simultaneously operated, each giving service as good as that provided by the circuit working in the ordinary way.

Heretofore, the best telephone methods known to the art provided only one telephone conversation at a time over a single pair of wires. A number of years ago we developed the "phantom circuit" arrangement by means of which three telephone circuits are obtained from two pairs of wires, an important improvement of which we have made extensive use. Now by our new multiplex method, we are enabled to obtain five telephone circuits over one pair of wires, that is, ten simultaneous telephone conversations from the two pairs of wires which formerly could be used for only three simultaneous telephone conversations. This represents an increase of more than threefold in the telephonic capacity of the wires, as compared with the best previous state of the art, and a fivefold increase under conditions where the "phantom circuit" is not employed.

In telegraphy, as well as in telephony, sensational results have been attained by the new system. By combining two telegraph wires into a metallic circuit of the type used for telephone working, and by applying our new apparatus and methods to this metallic circuit, we have enormously increased the capacity of the wires for telegraph messages. As applied to high speed printer systems we can do eight times as much as is now done, and as compared with the ordinary duplex telegraph circuit in general use we can do ten times as much. These increased results are attained without in any way impairing the quality of telegraph working.

The nature of these developments is such that if desired wires may be used partly for telephone and partly for telegraph. A pair of wires is available either for five simultaneous telephone conversations or for forty simultaneous telegraph messages, or partly for one and partly for the other.

From the nature of the apparatus and methods employed, the system is not practically advantageous on short lines, either telephone or telegraph. On long lines its application will be extended immediately, but its introduction must necessarily be gradual on account of the nature of the apparatus required, and the rearrangement and adaptation of the lines themselves, and their associated apparatus to the new methods of working. Our studies show, however, that this system of multiplex telephony and telegraphy will have great usefulness on long open wire lines. It is not too much to characterize this new system as marking an epoch in the development of long distance telephony and telegraphy.

Our new multiplex telephone system has already been applied to a pair of wires between Baltimore and Pittsburg and has been in service for a number of months, furnishing facilities greatly needed to take care of war business. Further applications of this system are under way in locations where additional long circuits are required.

LEGAL.

During the year just passed, perhaps the greatest activity in the legal department has been in its patent division. It is the function of this division not merely by proper patent applications to protect the inventions resulting from the work of the department of research and experimentation, but further to investigate the entire patent field so as to be assured that the rights are acquired and precautions taken which are necessary to prevent any patent complications which would restrict or hamper the development of the art from the engineering point of view. The comparatively recent and epoch-making inventions of our engineers in multiplex transmission and in other equally important lines, have added to the volume of this work of the patent division, and have emphasized its continuing importance.

At the end of 1918, the Bell System either owned, controlled or was licensed under 3,211 United States patents and 1,213 applications for such patents, making a total of 4,424. These patents and applications cover the entire known telephone field and may be roughly grouped into (1) a large number covering innumerable improvements in details, which collectively render it possible to vastly improve the character of the telephone service given, and to give this service at a minimum cost, and (2) those more or less fundamental to the rendition of a particular kind of service.

It is not an exaggeration to assert that there is not a practical detail of telephone development which is not represented by some patent under which the Bell System is free to operate. By reason of this favorable patent situation, the Bell System has the right to use all of the best and most efficient apparatus that has been already developed, and looking to the future there is no field of development from which it is excluded.

During the period that has elapsed since the license contracts were originally made, in order to adjust them to the development of the business and to the relations between the companies, these contracts have been modified in various respects as shown by letters, by written agreements and by the practice of the parties evidenced by a continued course of dealings between them. In the past year these contracts have been re-written, the definite purpose being not to make new agreements, but simply to evidence the contractual relations now and heretofore existing between the parties by a single, complete instrument. Some of these contracts as so re-written have been executed, and the remainder are in process of closing.

During the last year the amount of valuation work before commissions has been relatively small, and this work substantially ended on August 1st, with the beginning of the supervision, possession, control and operation under the joint resolution of Congress of July 16, 1918.

There have arisen out of the supervision, possession, control and operation under the joint resolution of Congress numerous questions, many of them new and intricate, to which much of the attention of the legal department has been given since August 1, 1918.

The legal department has continued its publications, including the commission leaflets, and the daily bulletin of current decisions which was instituted in the preceding year and has proved its value to the Bell System.

The suit of William A. Read and Company was commenced six years ago, and has been referred to in the last five preceding reports. The appeal from the decision of Judge Dever in the superior court of Cook County, Illinois, has been argued in print, and will come on for oral argument this spring in the appellate court. It will still be some time before an authoritative and final determination of this controversy can be had.

The state authorities have been disposed to question the power of the President of the United States, acting through the Postmaster General, under the joint resolution of Congress of July 16, 1918, to fix the intrastate rates and charges of telephone companies, and suits have already been brought in about one-half of the states involving this question. There is no uniformity in the decisions which have been rendered. Some of them have been based upon more or less informal preliminary hearings. Steps are being taken to present a test case to the supreme court of the United States which will authoritatively determine this question, and it is anticipated that such a decision will be obtained within a relatively short time. In the defense of these suits the Solicitor of the Post Office Department has had the assistance of the office of the Attorney General of the United States and the various United States district attorneys. The legal departments of this Company and the associated companies have assisted as requested.

The arrangement with the Attorney General of the United States which is set out in detail in the correspondence printed in the report for the year ending December 31, 1913, is still in effect. A careful adherence to it, coupled with entire frankness as to all of the matters in which the Company has been concerned, has resulted in a continued avoidance of misunderstandings and disagreements with the federal authorities.

GENERAL.

GOVERNMENT CONTROL.

For the information of the shareholders the terms of the contract are presented.

The principles adopted as a basis of compensation were:

First. Any compensation fixed for the period of control was to be considered as compensation for an emergency period and not in any way considered as establishing a value for the property.

Second. The operation of the property is to be continued on a basis of efficiency relatively equal to that of the past.

Third. The property is to be fully maintained so as to be turned back to the Company as good as when received.

Fourth. Appropriation from current revenue for depreciation and obsolescence to be the same as the past—an average of 5.72 per cent. on the fixed capital—amortization of intangible capital to be relatively equal to the past. All unexpended balances from both to be invested in the plant of the System. Charges against the depreciation reserve to be in accordance with the rules of the Interstate Commerce Commission.

Fifth. Employees' pensions, disability benefits and death benefits now in operation to be continued.

Sixth. All taxes, municipal, state or federal, to be paid, or reimbursed if paid by the companies, by the Government.

Seventh. The license and rental contracts between the American Telephone and Telegraph Company and the licensee companies to be continued, and the American Telephone and Telegraph Company is to give such advice and assistance as the Postmaster General may require, is to maintain its scientific, technical and engineering departments, its patent protection for the benefit of the property in the same manner as heretofore. The Postmaster General to have the benefit, during the period of control, in the operation of the wire system, of all inventions, discoveries and ideas which may now or hereafter be controlled by the Bell System.

These provisions are for the protection of the property, the service and the art, and provide for the continuation of the service and for the continual development of the art, as well as the protection of the developed situation, and are for the full protection of the public in its service and the proprietors in the property and development.

For the security holders is provided:

(a) Payment of the interest and existing amortization charges on all outstanding securities or obligations of the Bell System in the hands of the public, including the 6 per cent. convertible bonds issued August 1, 1918.

(b) Payment of dividends at the existing rate upon the share capital of the Bell System outstanding in the hands of the public.

(c) Payment of any charges, interest, dividends on new securities or share capital issued in discharge, conversion or renewal or extension of present obligations.

For extensions to property:

As provided above, unexpended depreciation shall be invested in property of the System.

American Telephone and Telegraph Company surplus shall be invested in its property.

Surplus profits from operation may be invested by the Postmaster General.

If securities or capital can be issued at fair terms, the Bell System will issue its securities if desired, but the nominal value of the securities shall not exceed 80 per cent. of the amount expended in the property.

Extensions to its property made with the approval of the Bell System by money furnished by the Postmaster General shall be paid for in installments of 5 per cent. per annum after the period of control ceases.

Extensions by the Postmaster General to meet abnormal conditions and made without the approval of the System shall be appraised by the Interstate Commerce Commission at the end of the period of control, and their value to the System as appraised shall be paid for in installments of 5 per cent. per annum.

The supervision, possession, control and operation of the "Telephone System," known as the Bell System, assumed by the President, acting under authority of the joint resolution of Congress, is in no sense permanent nor can it be likened to a sale and purchase. It is very temporary in its nature, for the property is to be returned after a limited period. The necessity of ample time to prepare for common supervision of operations was recognized and cared for in the order of the President which continued temporarily the operation in the hands of the existing organizations.

The Bell System is unique among all other systems of utilities of necessity, particularly in its own field. No other system of utility of necessity depends so much upon the exceptionally high personnel of its organization for the maintenance of the quality of, or the continuity of improvements and advance in, its services. In extent or comprehensiveness there is no other telephone system comparable to it. It is a nation-wide, universal system, complete in itself. Its administrative and operating organizations cover the whole telephone field of activity and the plant and equipment division of the telegraph field.

If all the other telephone systems of the country, not now connected or associated with the Bell System, were incorporated, the addition would be but a little more or less an ordinary year's growth and would not in any degree change the organization.

The operating organization of the Bell System upon which depends the service rendered was not created in a limited time or for a temporary period. It is composed very largely of trained technical experts whose education is a matter of years; it is special to the business and there is no large reserve of other and similar occupations to draw from. An important part of this organization is its department of research, investigation and experimentation. The plant, equipment, methods and all that contributes to telephone service, are still in a state of evolution, and that evolution is so continuous, so interrelated with the past, and in such various stages of progress from the nebulous suggestions and embryonic ideas to actual accomplishment and application to service, that a continuity of this evolution under the same direction and through the same organization is a case of "self-preservation" to the existing state of the art, and is a guarantee of its future protection.

For these reasons, in making any arrangement between the Government and the system covering the temporary period of control, the first consideration was preservation and conservation of the property and its organization. Monetary compensation was quite a secondary matter.

Lack of proper provision for maintenance, depreciation and obsolescence would soon take more out of the property, and lack of experienced, appreciative direction, sympathetic discipline and cultivation of "esprit," would take more out of the organization and do more to destroy the control of operations and retard the scientific development than any amount of compensation would balance.

It also seemed as if there was above the respective interests of either the Government or the Bell System, a common "super-interest,"—an obligation and responsibility resting upon both, in the preservation of a high standard of the plant, equipment and organization necessary to the maintenance of the service to be rendered to the public. The Post Office Department could not but be vitally interested in maintaining the service up to the past standards or better, and to do that, the plant, equipment and operating organization must be maintained. The Bell System was interested, if the plant and organization were to be returned at the end of the period of control, in having them returned in at least as good condition as when taken over. If the system was to be retained permanently, through subsequent legislation, the Bell System wanted no depreciated plant upon which the valuation would be based.

This necessitated a thorough, appreciative understanding and a harmonious co-operation between the Post Office Department and the Bell System working for a common object—the maintenance and continuance of an essential service. The fundamental features of any arrangement to be made were substantially fixed by the existing conditions.

The American Telephone and Telegraph Company and associated companies, although separate and independent entities, domiciled in the respective States in which they operate telephone systems, are connected by means of toll and long-distance lines and a central co-ordinating and supervisory organization into one comprehensive intercommunicating system—the Bell System.

As the Bell System, from the nature of its services, the extent and magnitude of its system, is by far the largest and most comprehensively organized of all the wire systems, any terms of agreement which would apply to the Bell System would apply generally to the others. For this reason the Postmaster General desired to make one agreement covering the entire Bell System, to make one which would contain the fundamental points common to the agreements with other systems, and to make that the first agreement.

Congress in its railroad legislation had established a precedent for a basis of compensation. Following this precedent, the three years 1915, 1916 and 1917 were considered as a test period. The average of these fairly represented the past and relatively the probable future under normal conditions. All the operations of the Bell System are clearly and explicitly set forth in the annual reports of the American Telephone and Telegraph Company, and have been currently reported to the Interstate Commerce Commission and various State commissions by the separate companies.

The practice and policy of the Bell System have been to maintain its plant and equipment at the very highest and most advanced standards, and to set aside a standard reserve out of current earnings against depreciation and obsolescence. All reconstruction covering current or determined depreciation or obsolescence is charged to this reserve, and the unexpended balance is invested in plant against the future. For the three years this unexpended reserve invested in plant was $77,000,000. The current expenses also included the so-called 4½ per cent. payment. Included in this payment and forming a substantial part thereof is the purchase, maintenance, depreciation and obsolescence of all telephone instruments used by the Bell System. This payment also covers all that extensive work which is an essential, inherent part of the operation of the system as a whole or of any system of its magnitude and comprehensiveness, and its cost must at some point be included in the operating expenses. Being common to the whole system, it must be co-ordinated under one policy and one control, that is, a centralized control. It can not be carried on by each separate company without excessive cost, duplication, confusion and destruction of standards. It constitutes virtually a central administration of the Bell System having supervisory charge of all matters common to all operating companies and co-ordinates them with activities, such as legal, finance, commercial and construction engineering, technical, general accounts, statistics, plant and traffic standards, and all other interrelations; and directly having control of what might be termed the creation, the development and the maintenance of the state of the art, the expenditures for the research, investigation and engineering departments in the development of new inventions and methods of operation, in the purchase of, or the acquiring licenses under, patents, without which the state of the art would be at a standstill, and the progress of the business would be paralyzed. The work covered by the payment has produced the present telephone service in its breadth and extent and its recent wonderful applications. It has also made possible applications to submarine and aero operations which have been of inestimable value in this war. It is conservatively estimated that the work of the departments is now saving the Bell System at least $50,000,000 a year in construction and operating costs.

The current necessary outlays of the system also include all taxes, interest on all obligations, and amortization of all intangibles, and dividends paid on all outstanding capital stock in the hands of the public. After all expenses and operating reserves and capital charges were deducted, there were surplus earnings which for the three years were $51,000,000. These surplus earnings had not been divided, but set aside against contingencies, fluctuations in business which could not be met by immediate readjustments, and were invested in plant against future necessity.

The Bell System submitted statements for the three-year period, and the Postmaster General had also secured copies of the statements covering the same period made by the various companies to the Interstate and various State Commissions. Estimates for the last five months of 1918 and also for the year 1919 were also made and submitted. (See tables on pages 40, 42 and 43.)

As economic advisors of the Postmaster General two of the most eminent professors of economics in the country, not connected in any way with any telegraph or tele-

BELL OPERATING COMPANIES, INCLUDING AMERICAN TELEPHONE AND TELEGRAPH COMPANY, LONG LINES.

TABLE OF RESULTS AS REPORTED TO INTERSTATE COMMERCE COMMISSION FOR 1915, 1916 AND 1917.

(Compiled from statements submitted to Post Office Department.)

	1915	1916	1917	Average 3 years
Telephone Operating Revenues	$225,545,182	$254,852,942	$284,112,385	$259,577,156
Telephone Operating Expenses	151,676,880	171,067,169	199,169,681	177,702,044
Net Telephone Revenues	$ 73,868,302	$ 83,785,773	$ 84,942,704	$ 81,875,112
Other Operating Revenues	$ 14,267	$ $14,549	$ 15,813	$ 14,876
Other Operating Expenses	11,056	15,411	16,572	14,346
Net Operating Revenues	$ 3,211	$ 862*	$ 759*	$ 530
Uncollectible Operating Revenues	$ 1,702,208	$ 1,479,988	$ 1,228,956	$ 1,491,508
Taxes (Operating)	11,940,450	13,668,440	18,892,404	15,098,381
Operating Income	$ 60,228,855	$ 68,636,483	$ 64,820,585	$ 65,285,753
Rent Revenues	973,838	862,807	784,461	876,197
Rent Expenses and Deductions	4,793,053	5,190,303	5,504,486	5,209,941
Balance Basis Corporate Income	$ 56,409,640	$ 64,308,987	$ 60,100,560	$ 60,952,009
6% on Increased Fixed Capital Aug. 1, 1918 over average for 3 years				9,470,700
Total				$ 70,422,700

*Deficit.

[NOTE: Compensation asked for by company as above $70,422,700
Compensation granted 65,148,641]

phone company, were selected by the Postmaster General. These experts made an exhaustive study of our statements and estimates, and found the statements of the three years in complete agreement with statements made by the associated companies to the Interstate and various State Commissions.

The extraordinary rapidity of the increase in wages and in cost of material, as noted elsewhere, could not be met by the economies in operation. To provide revenue against them a campaign of readjustment of rates had been started during 1917 which was well under way when the properties were taken over. In some cases, rates had been increased and put in effect, in some authorized, and in some favorably considered, while others were under consideration—the total increase deemed necessary to meet the abnormal increase in expenses being something under 10 per cent. The necessity of continuing this campaign and its effect upon our estimates was fully set forth and included in our estimates for the last five months of 1918 and for the year 1919, of which the experts in economics made studies and analyses and submitted them to the Postmaster General.

(See diagrams showing comparative increases of rates, wages, etc., on pages 50, 51 and 52.)

It was suggested that compensation should, as in the case of the railroads, be based on these three years' performance and that the Government should assume the same current obligations of the Bell System and continue during the period of control the same practices and the same policy that were being pursued.

After an exhaustive discussion of all the features, not so much because of difference of opinion as for the purpose of arriving at a complete understanding, the Postmaster General submitted to the President his recommendation that the compensation for the Bell System should be substantially in accord with our proposal.

COMPANY'S ESTIMATE OF NET REVENUE TO GOVERNMENT FROM BELL SYSTEM PROPERTIES, AUGUST 1, 1918, TO DECEMBER 31, 1918

Gross Telephone Revenue Bell System Experience 1908-1917, inclusive,				
shows first 6 months of year 48.87% of year				
last 5 months of year 42.79%				
42.79% is 87.56% of 48.87%				
Gross Telephone Revenue first 6 months				
Associated Companies and Long Lines—See CR 62 June	$155,140,501	87.56% is	$135,841,000	
Add Estimate of increased gross from rate increases and adjustments as planned prior to July 22, 1918—The part of this expected August 1—December 31, 1918 from other than Eastern and New England Groups which had not reported			3,700,000	
Additional now expected			617,000	
			$140,158,000	
Deduct 4½%—4¼% method. Under contract 4½% does not apply to all gross revenue. The payment averages about 4¼% to entire gross			5,973,000	
				$134,185,000
Telephone Operating Expense except Depreciation—				
First 6 months (excluding American Tel. and Tel. General)	$82,806,000			
This is 53.4% of $155,140,501. June ratio was 54.5%. Average ratio 5 years 50.1%. Average ratio last half 1917, 53.3%. Considering that last half year gross is normally 8% over first half, also the campaign to reduce expenses, I believe it is safe to estimate expense at 54% of normal revenue	135,841,000		73,354,000	
Depreciation August 1 Tangible Fixed Capital except Right-of-Way and Land		$1,031,000,000		
Add one-half expected additions 5 months 5/12 of 5.7% of		17,500,000		
		$1,048,500,000	24,900,000	98,254,000
				$35,931,000
Uncollectible Operating Revenue—				
First 6 months $654,291—0.42% of $155,140,501				
0.42% of 140,158,000			588,000	
Taxes—Assignable to Operations—				
First 6 months Bell System	$10,692,911			
Deduct American Telephone and Telegraph General	936,021			
	$ 9,756,890	5/6ths	8,130,000	8,718,000
				$27,213,000
As taxes represent each month 1/12 of estimate for year no increase here included. It is to be remembered that taxes may materially change as result of pending revenue bill.				
Add—Rent Revenue first half.... $375,900 5/6ths $313,250				
Less Rent Expense first half 140,900 5/6ths 117,400				196,000
				$27,409,000
Deduct—				
Rent Deductions first half $1,764,681 5/6ths				1,470,000
				$25,939,000
Balance Estimate of Government Revenue—				
Less Rental for 5 months as calculated to begin August 1, 1918			$ 29,342,800*	
Add Interest on Average additional capital August 1—Dec. 31, 1918 5/12 of 6% on $17,500,000			438,500	29,781,300
Deficit				$3,842,300

[*Note: Compensation asked for by company as shown here was at rate of $29,342,800 for 5 months, or for year.. $70,422,700
Compensation granted was.......... 65,148,641]

COMPANY'S ESTIMATE OF NET REVENUE TO GOVERNMENT FROM BELL TELEPHONE PROPERTIES JANUARY 1, 1919, TO DECEMBER 31, 1919

Telephone Operating Revenues—				
Normal Revenues for 1918 on basis of first six months would be 155,140,501—.4887 $317,450,000.				
Normal increase in revenues 1919 over 1918 would be average past increase over previous year				
1914 5.1% 1915 6.4% 1916 12.9% 1917 11.5% 1918 six months 7.1% Average 8.6% over $317,450,000 is				$344,750,000
Add Estimate of increased gross from rate increases and adjustments				30,775,000
				$375,525,000
Deduct 4½%—4¼% method				15,960,000
				$359,565,000
Telephone Operating Expense except Depreciation—				
First six months 1918	$ 82,806,000			
July 1918 Estimated	14,293,000			
Last five Months 1918 estimated	73,354,000			
	$170,453,000			
+8.6%	14,660,000			
			$185,113,000	
Deduct Reductions under Federal Control			4,000,000	$181,113,000
Depreciation—				
Tangible Fixed Capital 8-1-18		$1,031,000,000		
Add Estimated Increase 8-1 to 12-31-18		35,000,000		
Add Average of Increase Year 1919		50,000,000		
	5.7% on	$1,116,000,000		63,600,000
				$244,713,000
Uncollectible 0.42% of Gross			$ 1,577,000	$114,855,000
Taxes Assignable to Operations on the basis heretofore estimated for 1918	$20,000,000			
Add increase pro rata to property, say	2,000,000		$ 22,000,000	23,577,000
				$ 91,278,000
Add Rent Revenue 1918 Basis			$ 750,000	
Less Rent Expense 1918 Basis			280,000	470,000
				$ 91,748,000
Deduct Rent Deductions, say				3,748,000
Balance Estimate of Government Revenue				$ 88,000,000
Less Rental as calculated to begin Aug. 1, 1918			$ 70,422,700*	
Add 6% Interest on additional capital Aug. 1—Dec. 31, 1918		$35,000,000	2,100,000	
Add 6% Interest on average additional capital during 1919, say		50,000,000	3,000,000	$ 75,522,700
Estimated Profit to Government 1919				$ 12,477,300

[*Note: Compensation asked for by Company as shown here was .... $ 70,422,700
Compensation granted was .... 65,148,641]

STUDY OF THE ESTIMATES OF RESULT OF GOVERNMENT OPERATION OF THE BELL SYSTEM, PREPARED BY REPRESENTATIVES OF POSTMASTER GENERAL.

(HANDED TO BELL OFFICIALS SEPTEMBER 5, 1918.)

Judge Lamar:

Attached hereto is an income statement of the estimated income for the Bell Telephone System, year ending December 31, 1919. I have made four hypothetical income statements, which are designated by the captions at the head of each column. The income account prepared by the company shown in column one is based on the following assumption:

a. That revenues will increase 8.6% as a result of the natural growth in business;
b. That the company will secure rate increases amounting to $30,775,000;
c. That operating expenses will increase at the rate of 8.6%.

In columns 2, 3, and 4 I have made various assumptions concerning the probability of rate increases and of increases in wages. Interest payments were assumed to be approximately $30,000,000. This figure was arrived at by taking the interest charges for 1917 and increasing them by the charges on the new capital which the company estimates will have been invested in extensions by December, 1919.

(See statement on following page.)

HYPOTHETICAL INCOME ACCOUNT OF BELL TELEPHONE SYSTEM FOR YEAR ENDING DECEMBER 31, 1919

	Income account prepared by Company (1)	Income account excluding rate increases assumed by Company (2)	Income account excluding rate increases and assuming an increase of 10% in wages (3)	Income account assuming rate increases and assuming an increase of 10% in wages (4)
Telephone Operating Revenues	375,525,000	344,750,000	344,750,000	375,525,000
Telephone Operating Expense	244,710,000	244,710,000	260,210,000	260,210,000
A. T. & T. General Expense	8,000,000	8,000,000	8,000,000	8,000,000
Uncollectible Revenues	1,577,000	1,577,000	1,577,000	1,577,000
Taxes	22,000,000	22,000,000	22,000,000	22,000,000
	276,287,000	276,287,000	291,787,000	291,787,000
Operating Income	99,238,000	68,463,000	52,963,000	83,738,000
Add Rent Revenues less rent expense	470,000	470,000	470,000	470,000
	99,708,000	68,933,000	53,433,000	84,208,000
Less Rent deductions	3,748,000	3,748,000	3,748,000	3,748,000
Balance estimated of government revenue	95,960,000	65,185,000	49,685,000	80,460,000
Interest payments	30,000,000	30,000,000	30,000,000	30,000,000
Available for stock	65,960,000	35,185,000	19,685,000	50,460,000
% on $500,000,000 of Capital Stock	13.192%	7.037%	3.937%	10.092%
8% dividends on $500,000,000 of Capital Stock	40,000,000	40,000,000	40,000,000	40,000,000

[NOTE: Compensation asked for by Company was $70,422,700; compensation granted was $65,148,641.]

In making the award of compensation, the President authorized the conduct of the operations as in the past, including full maintenance, depreciation and the payment of current obligations upon all outstanding securities and upon new securities to be issued for renewals or for new extensions, and dividends at current rates upon share capital; the unexpended balance of depreciation reserve to be invested in the plant of the Company. The 4½ per cent. payment was fully discussed, the necessity of continuing the service covered by it was recognized, and as that payment was already included in the expenses, and if it was to be deducted from the expense would have to be added to the compensation, it was decided to continue it in its present form.

The next subject of consideration was an operating organization for the combined wire companies during the period of control, which would combine operations with the least possible disruption of existing organizations.

The Bell System, including the connecting companies, represented the only comprehensive, nation-wide telephone service, comprising as it does 90 per cent. of all telephone stations and 95 per cent. of all the toll lines and of all the telephone business of the United States. It is the only system furnishing any other than a local service restricted to a limited outside service. It is the only wire system which maintains a large organization entirely devoted to the development of the art. It is the only wire system which has any extensive combination of telegraph and telephone service, and the only wire system that has made any pronounced additions to the art of electric transmission, "land, cable or aero," of late years. Not including connecting companies, it has nearly 23,000,000 miles of wire used for exchange purposes, over 3,000,000 miles of connecting lines used for telephone and telegraph business, nearly twice as many miles of long-distance wires suitable for both telephone and telegraph as all telegraph companies combined. In its organization there are employed, exclusive of the connecting companies and the Western Electric Company, Inc., over 200,000 employees. While this is all well known, its importance is possibly not fully appreciated in connection with an operating organization for a unified system. Unlike other utilities, there is no outside source from which to draw skilled and experienced employees. While there are many executives of capacity and ability in the telephone field outside of the Bell System, only in the Bell System are there any who have as yet by trained ability and actual performance acquired the necessary experience to administer a nationwide system. No new organizations to carry on the operations could be created or substituted within the limited time of government control, and no matter what changes or improvements could be worked out any sudden, radical changes in the organization or revolutionary methods in the operation would be fatal to the service. It seems as though conditions existing determined the general character of the organization. It would be impossible that such an organization should not be given preponderant consideration in the making up of what must necessarily be temporary operating organization; not to do so would be disaster. The Postmaster General recognized this but also recognized that there was an equitable consideration which must be given to all the other systems and their organizations.

After consultation and a very careful consideration of the question, the Postmaster General created an Operating Board which supervised the operations of all, but which preserved the existing organizations under the direct charge of a representative of each system of any magnitude, or of a combination of the smaller systems, so far as such systems were willing to co-operate toward giving the best possible service and preserve as far as possible the continuity of the business.

DIAGRAMS

SHOWING THE RELATION BETWEEN THE CHARGES MADE FOR THE SERVICES OF UTILITIES OF NECESSITY AND THE FACTORS WHICH ENTER INTO OR CONTROL THE COSTS OF SUCH SERVICE.

There is an absolute and immutable relation between the total cost of production of any commodity or service and the total costs of the factors or elements which contribute to production. This sounds so commonplace that it seems useless to state it. It would also seem unnecessary to state that the price at which any service can be continuously sold is governed by the cost at which it can be continuously produced, and yet the public have without any consistency with their individual practice in their other activities, persistently disregarded these truisms and resisted the application of them to charges for the service of public utilities of necessity.

The experience of all in the tendency of prices during the past few years needs no other evidence that all costs which enter into production have increased by leaps and bounds. In the prices of commodities there has even been a greater relative increase than there has been in wages, which are fundamentally the base of all costs.

While all other products of industry have had their relative increase, the products of utilities of necessity, the service rendered by these essential and necessary servers of the community, have from 1913 until recently reflected either negligibly or only in a relatively slight degree the rising costs.

Table No. 1 shows the increase in prices of commodities and the increase in average payments for telephone service from 1914 to 1918, inclusive. It also shows the effect of the proposed increase in rates for telephone service. By comparison with increases in other utilities, the average charges for telephone service by the Bell

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System have remained almost stationary, while the asked-for increase is relatively a slight one.

Table No. 2 is a very graphic picture showing the increases in rates for the service of utilities of necessity from 1913 to the end of 1918. The increases in the telephone charges have been about 4 per cent. and the increases which have been asked for and which are necessary to preserve the equilibrium of revenue and expenses would amount to less than 13 per cent., which compared to increases in all other commodities is almost negligible.

Table No. 3 is an interesting showing of the downward course of telephone rates relative to the general wage level. This shows by comparison a virtual decrease of nearly one half in the existing rates, or if the rates asked for are granted the average rate would show, compared to wages, a virtual reduction of over 30 per cent. This diagram should be considered in close connection with Table No. 1 which shows the increase in wages and commodities, and also the actual increase in telephone rates and the increase now under consideration.

These comparisons graphically set forth the inconsistency that exists between regulated and controlled prices and unregulated and uncontrolled prices.

Regulated and controlled telephone systems struggling with the general increase of expense ask only for about 12 per cent. increase, while unrestrained commodities soar into the hundreds, and relative to the level of unregulated prices, regulated and controlled telephone rates show a decrease of over 30 per cent.

TABLE NO. 1

CHANGES IN BELL TELEPHONE RATES - 1913 to 1918
COMPARED WITH CHANGES IN WAGES AND PRICES

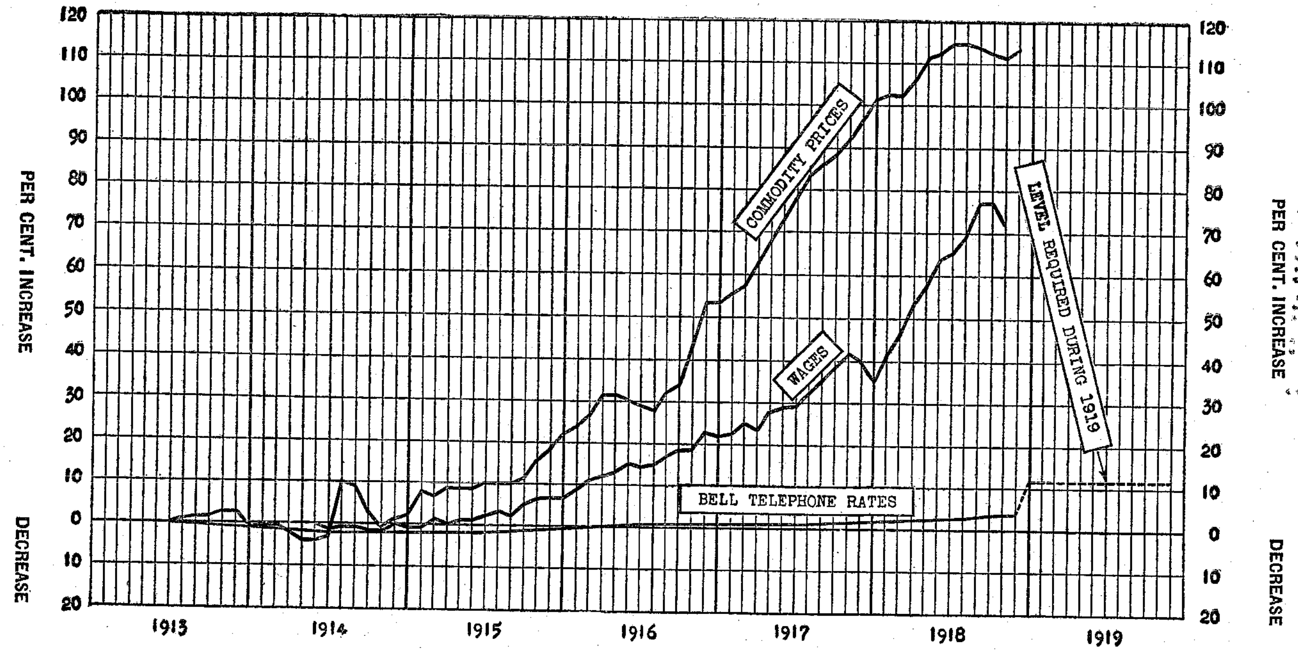
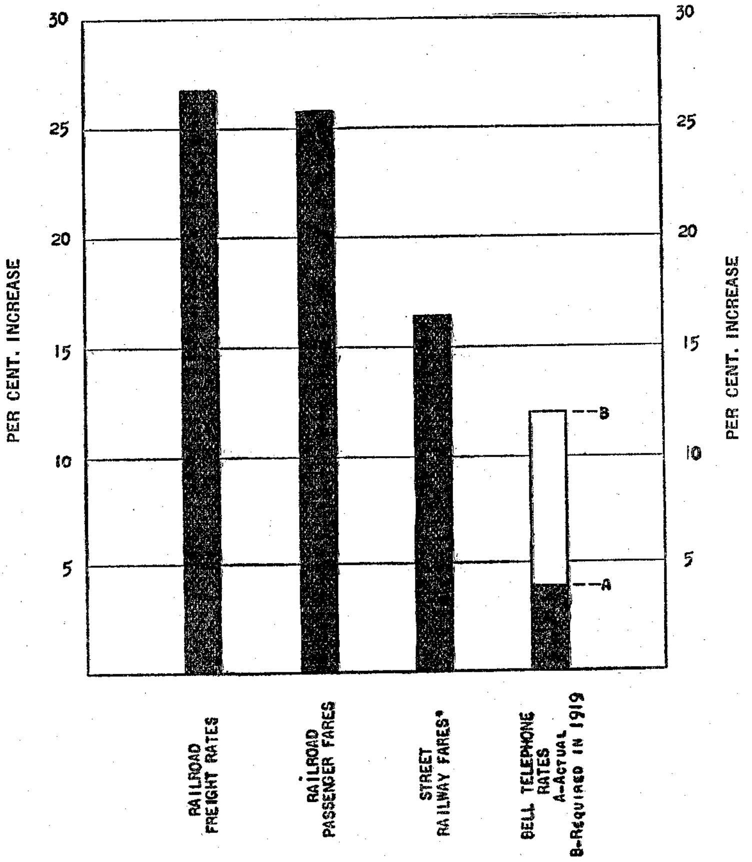


TABLE NO. 2

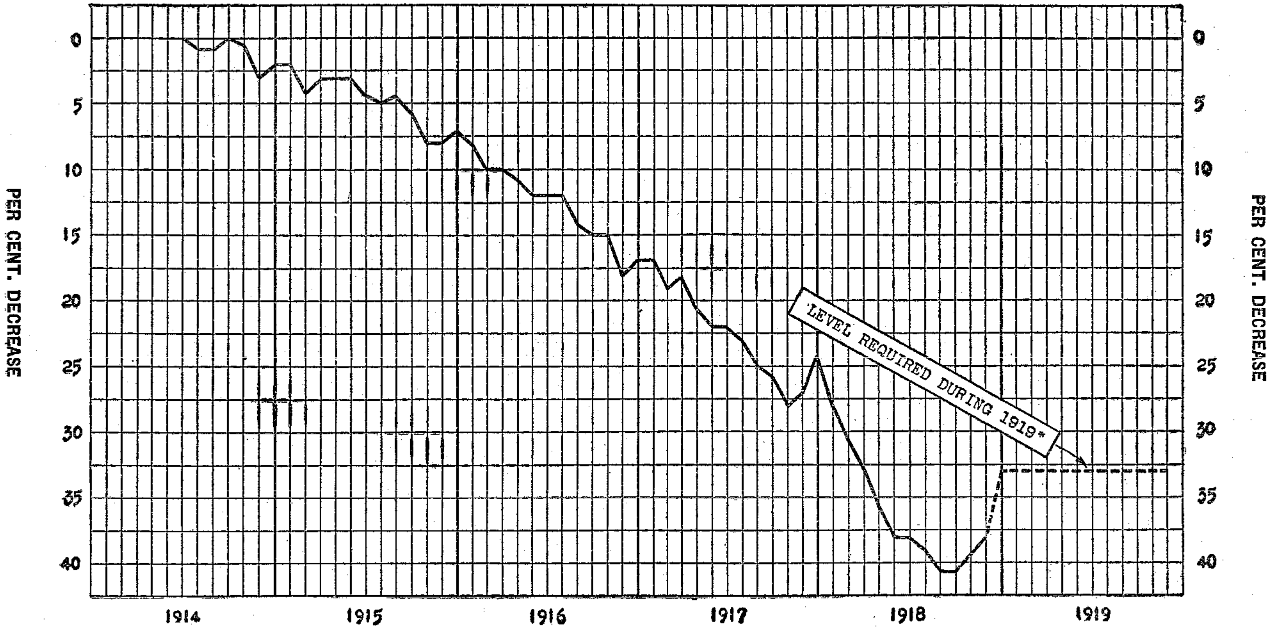
INCREASE IN BELL TELEPHONE RATES COMPARED WITH INCREASES IN RATES OF STEAM RAILROADS AND STREET RAILWAYS

Increase in Rates at End of 1918 over Rates in 1913



*Street Railway fares are measured by the average fare in all Cities of more than 40,000 population

TABLE NO. 3.
RELATIVE DOWNWARD COURSE OF BELL TELEPHONE AVERAGE RATES, 1914 TO 1918
EXPRESSED IN TERMS OF PURCHASING POWER OF MONEY AS REFLECTED BY WAGE LEVELS



*ASSUMING FIXED GENERAL WAGE LEVEL DURING 1919

COMBINATION AND REGULATION.

It will be extremely unfortunate if with a very pronounced public sentiment in favor of it, a wire system with nation-wide, universal, comprehensive service and complete utilization of all the facilities cannot be evolved from the existing conditions.

It seems paradoxical that the interpretation and application of existing laws against restraint of trade should be an obstacle in the way of such a tremendous expansion and improvement of the utilities of service and necessity which create trade, and upon which all economic activity and all trade and commerce are dependent.

When the combination of the complementary and supplementary services of the telephone and the telegraph was undertaken a few years since, great possibilities were anticipated, some of which were realized before the divorce. Greater potentialities were suspected. Under the impetus to the development of electric communication given by that attempted combination there have been some wonderful results. It has not yet been possible to utilize them to their fullest extent in economic activity and will not be until the ideal combination is made, yet in war activities they have been very effective, and have justified all the work done.

There is no reason, providing we have rational control and regulation or Governmental supervision, to fear Government ownership; but without a rational, effective control which will regulate but not restrict, control but not destroy, utilities of necessity, Government ownership is inevitable.

There is little doubt remaining in the minds of the public, but that regulated monopoly is better than unregulated Government ownership, and there is no longer any extensive conviction that there can be effective competition in the electric transmission of intelligence requiring a nation-wide universal system, whether messages or conversations.

It is however essential, whether ideal combinations are brought about or not, that before the great utilities of intercommunication and transportation are returned from Government possession, such changes in the existing laws concerning control and regulation, competition and combination, shall be made as will permit combinations demanded by the public interested when approved by the authorities having jurisdiction, particularly such as are necessary to properly adjust inequalities which will cause economic and industrial disturbance so long as they remain.

If there is to be control and regulation there can be no competition in any unrestricted sense of the word. If there is to be effective control and regulation, there should be no objection to combination.

The public want and should have some restraining authority over these very essential necessities, but it should not be restrictive of enterprise and should have some responsibility for its actions. There should be a complete coordination and corelation by means of the control and regulation of the various factors which make the cost of operation as well as of the revenue.

It is impossible for anyone, no matter how judicial or equitable in acts or intentions, to properly adjust or equilibrate factors within his control and factors without his control, some of which are constant and governed by economic laws, some varying and controlled by fluctuating economic conditions or by the ever-varying human equation. It is as impossible to regulate and control systems of utilities effectively through various uncorelated, uncoordinated powers each having jurisdiction over separate parts as it would be to operate those systems effectively through heads of departments having no common policy or control, or any responsibility to each other, to the system, or to the public.

Uncontrolled control and regulation and unequal competition have greater power for evil than exists if the systems were left to their unrestricted course.

We have had some fifty years' experience in intensive development of utilities. We have in that time seen utilities of convenience become utilities of necessity and have seen many great developments of potentialities in these utilities which were undreamed of until science and practice were coordinated and corelated with systematized organization for production.

Much if not most of this development was done under unrestricted, unrestrained operation and promotion. It could not have been done otherwise for without the incentive of adventure, without speculative capital, without unrestricted possibilities, the risks never would have been taken. This is no longer essential; utilities of necessity have become established. The era of small capital and great expectations in utilities of necessity is passed. The era of large possibilities and large investment capital is here. The incentive of large accomplishment must now control and this requires large capital. The only incentive to capital in large amounts is certainty and security, and certainty and security can only come through responsible control and regulation recognizing economic rules or laws deduced from experience, judicial in its conclusions, equitable in its findings, prompt in its action, and above all, the controlling and regulating bodies to be of such standing and such authority, either moral, legal or personal, as will give effect to or command respect for their decisions.

Control and regulation should be divorced as far as possible from partisan or class influence, and the influence of misinformed or interested public prejudice. It is impossible for any body to be judicial or equitable if its decisions are subject to hostile criticism and public condemnation without any other reason than prejudice based on misinformation or ignorance.

Control and regulation should be confined to the power of revision and approval; to determination and judgment.

Initiation is the province of operation.

Initiation must come from familiarity; continuous intimate association with and observation of operation. Initiative must be controlled by judgment that comes only from experience. Uncontrolled initiative has created havoc with many enterprises.

The knowledge necessary for determination and judgment must be based on representation and hearing, on the specific observation and experience of others weighed by general knowledge and wide experience. It cannot be based on personal observation or experience of any tribunal because of lack of continuity and intimacy of acquaintance.

There are a few truisms, a few basic principles upon which all new legislation relating to combination, control and regulation should be built.

"Any particular utility 'Service' which to be complete depends for its performance upon the facilities of several independent or distinct systems, over or by which part of the particular 'Service' is performed, can be more efficiently and economically performed if all the systems participating in such 'Service' are combined into one co-operative, co-ordinated system, operating under one policy. Such a system should be co-extensive with the territory over which the service extends."

"When any system is giving or can be made to give a complete, sufficient and efficient 'Service,' it is uneconomical and both directly and indirectly detrimental to the best interests of the public to allow any duplication or partial duplication of that system."

"No public utility should be obliged to give continuously, a service without reasonable profit, when operation is efficient and economic and includes ample provision for maintenance and reconstruction due to depreciation and obsolescence and all taxes; and when the capital investment is represented by plant and equipment properly planned, economically constructed, located in and serving an area of which the developed or potential business or traffic conditions warranted the construction of such a plant or system."

The conclusion and solution seem to be: "There can be no satisfactory or evenly adjusted control and regulation of systems of 'utility of necessity' more or less interdependent, operating in more or less the same or contiguous territory and controlled by economic conditions common to all of them, when such systems are from physical and other reasons very unequally situated and conditioned as to facility or difficulty of construction and operation and have a very unequal dependent or contributing traffic.

"All systems of similar utilities operating in more or less the same or contiguous territory, should be combined into one or more well balanced systems, the extent of which should be determined by the nature of the service, by the extent of the service rendered, and by commercial, geographic and economic reasons.

"The operating organization should be adapted to the requirements of the service, and established on the lines which experience, enterprise and operation in the industrial world have shown to be effective, efficient and economical.

"With the administration of such systems should be combined in some manner, and as far as possible divorced from political, partisan, or class influence, and subject to reasonable review, the requisite power and authority under legislative mandate to equilibrate capital charges, operating costs and revenue."

For the Directors,
THEODORE N. VAIL,
President.

American Telephone and Telegraph Company
Balance Sheet, December 31, 1918

ASSETS

Stocks of Associated Companies	$537,761,845.61	
Bonds and Notes of Associated Companies	104,256,700.00	$642,018,545.61
Telephones	18,988,928.58	
Real Estate	509,267.36	
Office Furniture and Fixtures	288,162.33	
Long Lines Telephone Plant	75,450,890.26	95,237,248.53
Trustees—Employees' Stock Purchase Plan		1,226,000.25
Special Demand Notes	21,583,412.10	
Current Accounts Receivable	7,469,934.16	
Accounts Receivable—in Suspense†	15,300,559.94	
Deferred Assets*	1,002,156.16	45,356,062.36
Temporary Cash Investments	5,642,974.94	
Cash and Deposits	31,675,902.78	37,318,877.72
		$821,156,734.47

LIABILITIES

Capital Stock	$441,947,100.00	
Capital Stock Installments	238.00	$441,947,338.00
4% Collateral Trust Bonds, 1929	78,000,000.00	
5% Collateral Trust Bonds, 1946	78,333,900.00	
5% Western T. & T. Co. Bonds, 1932	9,985,000.00	
4% Convertible Bonds, 1936	2,589,000.00	
4½% Convertible Bonds, 1933	13,073,500.00	
6% Convertible Bonds, 1925	48,353,624.00	230,335,024.00
Notes Payable to Bankers		4,000,000.00
Dividend Payable January 15, 1919	8,838,942.00	
Interest and Taxes Accrued, but not due	4,775,914.15	
Current Accounts Payable	1,944,742.06	15,559,598.21
Employees' Benefit Fund		2,000,000.00
Reserve for Depreciation and Contingencies		43,900,076.83
Surplus (including Capital Stock Premiums and excluding Debt Discount and Expense)		83,414,697.43
		$821,156,734.47

†Pending settlement of Central Union Telephone Company litigation.

*Cash turned over to Postmaster General as working capital.

NOTE: $53,900,000 Notes of Associated Companies, endorsed but not owned by this Company, are not included above in either Assets or Liabilities.

W. S. GIFFORD, *Comptroller.*

American Telephone and Telegraph Company
Comparative Statement of Earnings and Expenses

For the years 1917 and 1918

EARNINGS:	1917.	1918.
Dividends	$28,894,254.50	$19,527,451.00
Interest and other Revenue	19,455,260.72	18,022,220.18
Telephone Traffic (net)	7,887,547.98	*4,726,095.86
Compensation—account Government Contract, 5 Months 1918		18,780,395.66
Total	$56,237,063.20	$61,056,162.70
EXPENSES	7,296,596.57	6,763,145.98
NET EARNINGS	$48,940,466.63	$54,293,016.72
Deduct Interest	10,469,360.47	10,391,694.89
Balance	$38,471,106.16	$43,901,321.83
Deduct Dividends	32,481,613.76	35,229,698.96
Balance	$ 5,989,492.40	$ 8,671,622.87
Appropriated for Contingencies	2,500,000.00	5,000,000.00
Balance, added to Surplus	$ 3,489,492.40	$ 3,671,622.87

* 7 Months 1918

W. S. GIFFORD, *Comptroller.*

Annual Earnings and Dividends

Year.	Net Revenue.	Dividends Paid.	Added to Reserves.	Added to Surplus.
1900	$5,486,058	$4,078,601	$937,258	$470,199
1901	7,398,286	5,050,024	1,377,651	970,611
1902	7,835,272	6,584,404	522,247	728,621
1903	10,564,665	8,619,151	728,140	1,217,374
1904	11,275,702	9,799,118	586,149	890,435
1905	13,034,038	9,866,355	1,743,295	1,424,388
1906	12,970,937	10,195,233	1,773,737	1,001,967
1907	16,269,388	10,943,644	3,500,000	1,825,744
1908	18,121,707	12,459,156	3,000,000	2,662,551
1909	23,095,389	17,036,276	3,000,000	3,059,113
1910	26,855,893	20,776,822	3,000,000	3,079,071
1911	27,733,265	22,169,450	2,800,000	2,763,815
1912	32,062,945	26,015,588	2,800,000	3,247,357
1913	32,920,090	27,454,037	2,500,000	2,966,053
1914	32,334,814	27,572,675	2,500,000	2,262,139
1915	34,618,638	29,100,591	2,500,000	3,018,047
1916	38,013,277	31,122,187	2,500,000	4,391,090
1917	38,471,106	32,481,614	2,500,000	3,489,492
1918	43,901,322	35,229,699	5,000,000	3,671,623

W. S. GIFFORD, *Comptroller.*

BELL TELEPHONE SYSTEM IN THE UNITED STATES

CONDENSED STATISTICS

	Dec. 31, 1895.	Dec. 31, 1900.	Dec. 31, 1905.	Dec. 31, 1910.	Dec. 31, 1915.	Dec. 31, 1917.	Dec. 31, 1918.	Increase
Total Miles of Pole Lines....	78,203	131,538	213,233	282,877	330,602	351,222	354,936	3,714
Miles of Underground Conduit (length of single duct)..				30,165	44,510	51,208	52,010	802
Miles of Underground Wire....	184,515	705,269	2,345,742	5,992,303	10,536,837	13,451,121	13,967,496	516,375
Miles of Submarine Wire......	2,028	4,203	9,373	24,636	36,314	46,868	53,361	6,493
Miles of Aerial Wire.........	488,872	1,252,329	3,424,803	5,625,273	7,932,394	9,112,498	9,260,293	147,795
Total Miles of Wire........	675,415	1,961,801	5,779,918	11,642,212	18,505,545	22,610,487	23,281,150	670,663
Comprising Toll Wire.........	215,687	607,599	1,265,236	1,963,994	2,453,483	3,088,808	3,333,920	245,112
Comprising Exchange Wire....	459,728	1,354,202	4,514,682	9,678,218	16,052,062	19,521,679	19,947,230	425,551
Total....................	675,415	1,961,801	5,779,918	11,642,212	18,505,545	22,610,487	23,281,150	670,663
Miles of Phantom Circuit.....				115,506	196,841	281,016	305,400	24,384
Total Exchange Circuits......	237,837	508,262	1,135,449	2,082,960	3,174,271	3,706,682	3,763,689	57,007
Number of Central Offices.....	1,613	2,775	4,532	4,933	5,300	5,676	5,742	66
Number of Bell Stations (Owned)	309,502	835,911	2,282,378	3,933,056	5,968,110	7,031,530	7,201,757	170,227
Number of Bell Connected Stations.................		20,000	246,337	1,949,663	3,183,111	3,444,148	3,790,568	346,420
Total Stations............	309,502	855,911	2,528,715	5,882,719	9,151,221	10,475,678	10,992,325	516,647
Number of Employees........	14,517	37,067	89,661	120,311	156,294	192,364	*199,914	7,550
Number of Connecting Companies, Lines and Systems...				17,845	28,306	31,428	35,393	3,965
Exchange Connections Daily...	2,351,420	5,668,986	13,543,468	21,681,471	25,183,799	30,845,153	*31,263,611	418,458
Toll Connections Daily.......	51,123	148,528	368,083	602,539	819,030	1,009,205	*1,045,903	36,698

* July 31, 1918.